INDEX

UKRAINIAN MATHEMATICAL JOURNAL

Volume 21, Numbers 1-6, 1969

UKRAINIAN MATHEMATICAL JOURNAL

Volume 21, Numbers 1-6, 1969

(A translation of Ukrainskii Matematicheskii Zhurnal)

A

Akhiezer, N. I. - 295
Aleksandrov, I. A. - 301
Alekseev, V. M. - 670
Alkhimov, M. I. - 445

B

Babich, M. D. - 1
Bakhabov, G. - 565, 675
Baris, Ya. S. - 241, 365
Beiko, I. V. - 384
Belyi, V. I. - 301
Blank, Ya. P. - 295
Borodin, M. A. - 198
Borodyanskii, M. Ya. - 305, 367
Boyadzhiev, G. - 206
Butsan, G. P. - 601

C

Charin, V. S. - 287, 367
Chernikov, S. N. - 160
Chernyi, E. M. - 358, 371

D

Danilovich, V. P. - 313, 368
Danilyuk, I. I. - 301
Dekhtyaryuk, E. S. - 572
Demenin, A. N. - 320, 368
Draitsun, I. A. - 104
Drobotenko, E. S. - 687
Dudyk, V. Yu. - 452
Dzyadyk, V. K. - 143

E

Efimchuk, M. O. - 580
Ezhov, I. I. - 694
Ezrokhi, I. A. - 548

F

Fesenko, E. D. - 486
Feshchenko, S. F. - 89
Fil'chakov, P. F. - 136, 182
Fodchuk, V. I. - 120, 241, 365, 528

G

Gatun, V. P. - 253, 365
Gikhman, I. I. - 263, 366
Godich, V. I. - 679
Grobov, V. A. - 682
Gumlyanskii, V. Ya. - 301

I

Ivanitskii, V. G. - 699
Ivanov, V. V. - 1, 610
Ivasishen, S. D. - 11

K

Kaspshitskaya, M. F. - 21
Kelesnik, L. I. - 85
Kirichenko, N. F. - 79
Kiselevich, L. A. - 584
Knopov, P. S. - 81
Komarenko, A. N. - 457, 630
Korenblyum, B. I. - 572
Korenevskii, D. G. - 89
Korol', E. N. - 91
Korolyuk, V. S. - 239, 705
Korsunskii, L. M. - 418
Koshmanenko, V. D. - 173
Kovach, Yu. I. - 212, 491
Kozubovskaya, I. G. - 337, 369, 620
Kravchenko, F. G. - 639
Krochuk, V. V. - 463
Kurpel', N. S. - 502

L

Litvinov, A. N. - 470
Lomakin, Yu. V. - 331, 369
Lopatinskii, Ya. B. - 301
Lyantse, V. E. - 396
Lyashko, I. I. - 477

M

Makheshvari, M. L. - 219
Marchenko, V. A. - 295
Martsinkovska, Ganna - 515
Martynyuk, A. A. - 337, 369, 591
Migovich, F. M. - 502
Mistetskii, G. E. - 477
Mitropol'skii, Yu. A. - 136, 295 373, 407, 598
Mitropol'skii, Yu. M. - 121
Moiseenko, D. Ya. - 98
Morev, I. A. - 102
Mozgoraya, L. I. - 30

N

Norkin, S. B. - 331, 369

P

Panchishin, V. I. - 136
Parasyuk, O. S. - 373
Pavlii, V. P. - 650
Peklova, L. P. - 596
Petrenko, V. G. - 104
Pokhilevich, V. A. - 39

R

Roitberg, Ya. A. - 343, 370
Ronto, N. I. - 223
Rushchitskaya, S. O. - 226, 708
Rybak, M. A. - 231

S

Samoilenko, Yu. S. - 418
Savchenko, L. I. - 212
Senik, P. M. - 271, 368
Shamraeva, L. V. - 68, 236
Sharkovskii, A. N. - 598
Shelest, V. P. - 373
Shevelev, A. G. - 538
Shevelo, V. N. - 120
Shumeiko, V. D. - 305, 367
Sil'vestrov, D. S. - 657
Simonova, S. N. - 428
Skorokhod, A. V. - 253, 365
Stovbun, A. V. - 711
Strashinina, K. P. - 108
Strizhak, T. G. - 110, 350, 370
Strochik, T. V. - 48
Sukennik, A. A. - 591

T

Tar, M. M. - 354, 370
Telyakovskii, S. A. - 279, 366
Ten, V. S. - 233
Tivonchuk, V. I. - 114
Tkach, B. P. - 58, 407

V

Varbanets, P. D. - 77
Vasilishin, S. A. - 598
Velikoivanenko, I. M. - 477

W

Wu The Hyu - 309, 367

Y

Yanishevskii, A. P. - 359, 371
Yatsun, V. A. - 436

Z

Zadiraka, V. K. - 610
Zas'ko, V. N. - 325, 368

UKRAINIAN MATHEMATICAL JOURNAL
Volume 21, Numbers 1-6, 1969
(A translation of Ukrainskii Matematicheskii Zhurnal)

Volume 21, Number 1 January-February, 1969

	Engl.	Russ.
Investigation of the Total Error in Minimization of Functionals with Constraints – M. D. Babich and V. V. Ivanov	1	3
Estimates of Green's Function of Homogeneous First-Boundary Problem for a Second-Order Parabolic Equation in a Noncylindrical Region – S. D. Ivasishen	11	15
The Convergence of a Version of the Method of Collocation – M. F. Kaspshitskaya	21	28
One Generalization of the Class of Marx-Tchakaloff Functions – L. I. Mozgovaya	30	38
Meromorphic Close-to-Convex Functions in a Circle – V. A. Pokhilevich	39	50
Conformal Mapping of Half-Strips of Constant Width – T. V. Strochik	48	60
Periodic Solutions of a Countable System of Differential Equations with Deviating Neutral Argument – B. P. Tkach	58	73
Prime Ideals in Some Banach Algebras of Infinitely Differentiable Functions – L. V. Shamraeva	68	86
BRIEF COMMUNICATIONS		
Distribution of Solutions of the Congruence $x^2+y^2\equiv 1 (\mathrm{mod}\, p^l)$ – P. D. Varbanets	77	96
Stability of Motion in a Given Bounded Set with Permanently Acting Disturbances – N. F. Kirichenko	79	98
Estimate of the Spectra of Uniform and Isotropic Gaussian Fields – P. S. Knopov	81	100
The Converse of a Kellogg-Type Theorem – L. I. Kolesnik	85	104
On the Cauchy Problem for a Hyperbolic Equation with Functionally Perturbed Argument – D. G. Korenevskii and S. F. Feshchenko	89	108
A Variant of the Yu. D. Sokolov Method of Averaging Functional Corrections – E. N. Korol'	91	110
Stable Boundedness of the Solutions of a Second-Order Vector Equation with Periodic Coefficients – D. Ya. Moiseenko	98	117
A Multi-Dimensional Analog of Cauchy's Formula – I. A. Morev	102	121
A Parabolic-Type Equation with Piecewise-Smooth Coefficients – V. G. Petrenko and I. A. Draitsun	104	122
The Integral of the Navier-Stokes Equation for the Three-Dimensional Motion of an Incompressible Fluid – K. P. Strashinina	108	127
Dynamical Stability of a Pendulum Filled with Viscous Liquid – T. G. Strizhak	110	129
Solution of Nonlinear Integral Equations with Variable Limits by the Method of Averaging of Functional Corrections – V. I. Tivonchuk	114	133
CHRONICLES		
Second All-Union Interuniversity Conference on the Theory and Applications of Differential Equations with a Deviating Argument – V. I. Fodchuk and V. N. Shevelo	120	139

Volume 21, Number 2 March-April, 1969

The Principal Achievements in Mathematics in the Academy of Sciences of the Ukrainian SSR during Half a Century – Yu. M. Mitropol'skii 121 147

The Development of Computational Mathematics and Mathematical Modelling at the Institute of Mathematics of the Academy of Sciences of the Ukrainian SSR – Yu. A. Mitropol'skii, P. F. Fil'chakov, and V. I. Panchishin 136 165

Investigations in the Theory of the Approximation of Analytic Functions Carried Out at the Mathematics Institute, Academy of Sciences of the Ukrainian SSR – V. K. Dzyadyk 143 173

Investigation of Groups with Given Properties of the Subgroups – S. N. Chernikov 160 193

On the Normal Form of Operators – V. D. Koshmanenko 173 210

Use of Power Series in Solving Linear and Nonlinear Ordinary Differential Equations and Systems Thereof – P. F. Fil'chakov 182 220

BRIEF COMMUNICATIONS

The Riemann-Hilbert Boundary-Value Problem for Holomorphic Functions of Several Complex Variables – M. A. Borodin 198 238

On the Asymptotic Solution of a Nonlinear Second-Order Differential Equation with Slowly Varying Parameters in the Presence of a Large Resistance – G. Boyadzhiev 206 246

A Two-Sided Iterative Method for the Solution of a Boundary Value Problem for Nonlinear Systems of Differential Equations of Parabolic and Hyperbolic Types – Yu. I. Kovach and L. I. Savchenko 212 252

On K-Transforms – M. L. Makheshvari 219 260

The Periodic Solution of a Linear Inhomogeneous Differential Equation – N. I. Ronto 223 265

A Theorem on Homeomorphisms for an Elliptic Differential Expression and Pseudo-differential Boundary Conditions – S. O. Rushchitskaya 226 268

Equivalence of Some Statements of the Inverse Problem for the Schrödinger Equation – M. A. Rybak 231 273

Introduction of a Class of p-Indecomposable Positive Operators in Banach Space – V. S. Ten 233 275

Principal Primary Ideals of the Ring of Functions Which are Regular in a Circle and Differentiable on Its Boundary – L. V. Shamraeva 236 278

CHRONICLES

The Work of the Sixth Mathematical School – D. V. Gusak, A. N. Demenin, and V. S. Korolyuk 239 281

Volume 21, Number 3 May-June, 1969

Investigation of Bounded Solutions of Linear Irregularly Perturbed Systems by the Method of Integral Manifolds – Ya. S. Baris and V. I. Fodchuk 241 291

Difference Equations and Markov Chains – V. P. Gatun and A. V. Skorokhod 253 305

Convergence to Markov Processes – I. I. Gikhman 263 316

Inversion of the Incomplete Beta Function – P. M. Senik 271 325

Approximation of Functions Satisfying Lipschitz Conditions by Féjer Sums – S. A. Telyakovskii 279 334

Groups of Finite Rank. III – V. S. Charin 287 344

ANNIVERSARIES

Aleksei Vasil'evich Pogorelov (on His Fiftieth Birthday) – N. I. Akhiezer, Ya. P. Blank, V. A. Marchenko, and Yu. A. Mitropol'skii 295 354

	Engl./Russ.	
Georgii Dmitrievich Suvorov (on His Fiftieth Birthday) – I. A. Aleksandrov, V. I. Belyi, V. Ya. Gumlyanskii, I. I. Danilyuk, and Ya. B. Lopatinskii	301	361
BRIEF COMMUNICATIONS		
Reduction of a Particular Form of High-Order Matrix to Quasidiagonal Form – M. Ya. Borodyanskii and V. D. Shumeiko	305	365
Determination of the Average Value of a Stable Process with Independent Increments – Wu The Hyu	309	369
Construction of an Abstract Computational Algorithm for the Solution of the Inverse Logarithmic Potential Problem – V. P. Danilovich	313	373
Properties of Functional Hermitian Polynomials – A. N. Demenin	320	380
Convexity Boundaries for Classes $S^*_\alpha(m)$ and $\Sigma^*_\alpha(m)$ – V. N. Zas'ko	325	386
Asymptotic Behavior of Solutions to a Second-Order Linear Homogeneous Equation with Deviating Argument – Yu. V. Lomakin and S. B. Norkin	331	392
Sufficient Conditions for Stability in a Finite System with Delay – A. A. Martynyuk and I. G. Kozubovskaya	337	399
Green's Formula and the Homeomorphism Theorem for General Elliptic Boundary Value Problems with Boundary Conditions that are not Normal – Ya. A. Roitberg	343	406
The Motion of a Pendulum Whose Point of Support is Acted on by Periodic Impulses – T. G. Strizhak	350	413
On a Criterion for the Analyticity of a Function of a Complex Variable – M. M. Tar	354	417
Note on the Summation of One Class of Power Series – E. M. Chernyi	358	421
A Method of Integral Equations in the Theory of Gyrocompasses – A. P. Yanishevskii	359	422
ABSTRACTS		
Investigation of Bounded Solutions of Linear Irregularly Perturbed Systems by the Method of Integral Manifolds – Ya. S. Baris and V. I. Fodchuk	365	429
Difference Equations and Markov Chains – V. P. Gatun and A. V. Skorokhod	365	429
Convergence to Markov Processes – I. I. Gikhman	365	429
Inversion of the Incomplete Beta Function – P. M. Senik	366	430
Approximation of Functions Satisfying Lipschitz Conditions by Fejér Sums – S. A. Telyakovskii	366	430
Groups of Finite Rank. III – V. S. Charin	367	430
Reduction of a Particular Form of a High-Order Matrix to Quasidiagonal Form – M. Ya. Borodyanskii and V. D. Shumeiko	367	430
Determination of the Average Value of a Stable Process with Independent Increments – Wu The Hyu	367	430
Construction of an Abstract Computational Algorithm for the Solution of the Inverse Logarithmic Potential Problem – V. P. Danilovich	368	431
Properties of Functional Hermitean Polynomials – A. N. Demenin	368	431
Convexity Boundaries for Classes $S^*_\alpha(m)$ and $\Sigma^*_\alpha(m)$ – V. N. Zas'ko	368	431
Asymptotic Behavior of Solutions to a Second-Order Linear Homogeneous Equation with Deviating Argument – Yu. V. Lomakin and S. B. Norkin	369	431
Sufficient Conditions for Stability in a Finite System with Delay – A. A. Martynyuk and I. G. Kozubovskaya	369	431
Green's Formula and the Homeomorphism Theorem for General Elliptic Boundary Value Problems with Boundary Conditions that are not Normal – Ya. A. Roitberg	370	432
The Motion of a Pendulum Whose Point of Periodic Support is Acted on by Periodic Impulses – T. G. Strizhak	370	432
On a Criterion for the Analyticity of a Function of a Complex Variable – M. M. Tar	370	432
Note on the Summation of One Class of Power Series – E. M. Chernyi	371	432
A Method of Integral Equations in the Theory of Gyrocompasses – A. P. Yanishevskii	371	432

Volume 21, Number 4 July-August, 1969

Nikolai Nikolaevich Bogolyubov (On His Sixtieth Birthday) – Yu. A. Mitropol'skii, O. S. Parasyuk, and V. P. Shelest	373	435
A Numerical Method for Solving Nonlinear Problems of Optimal Pursuit – I. V. Beiko	384	447
Expansion in Eigenvectors of a Nonself-Adjoint Difference Operator – V. É. Lyantse	396	461
Periodic Solutions of Nonlinear Systems of Neutral Partial Differential Equations – Yu. A. Mitropol'skii and B. P. Tkach	407	475
Integral Representation of Invariant Positive-Definite Matrix Kernels – Yu. S. Samoilenko and L. M. Korsunskii	418	487
Output Flow of Single-Line Queuing Systems – S. N. Simonova	428	501
Analytic Continuation of Expansions in Jacobi Polynomials – V. A. Yatsun	436	511
BRIEF COMMUNICATIONS		
Bounded Summability of Double Series and Sequences – M. I. Alkhimov	445	522
The Approximate Solution of a Class of Integral Equations – V. Yu. Dudyk	452	530
Imbedding Theorems for Spaces with a Metric Degenerate on Part of the Boundary of the Domain – A. N. Komarenko	457	535
Approximate Solution of Ordinary Differential Equations by Means of Positive Linear Operators – V. V. Krochuk	463	541
Limit Theorem for the Densities of the Markov Sums of Random Variables – A. N. Litvinov	470	549
The Numerical-Analytic Solution of Boundary-Value Problems for the Equation $\operatorname{div}(\varkappa \operatorname{grad}\varphi) = F$ with Piecewise-Constant $\varkappa$ – I. I. Lyashko, I. M Velikoivanenko, and G. E. Mistetskii	477	557
Infinitely Small Conformal Deformations of a Multiply-Connected Convex Surface – E. D. Fesenko	486	566

Volume 21, Number 5 September-October, 1969

On the Boundary-Value Problem for an m_i-th-Order Parabolic or Hyperbolic Type Operator – Yu. I. Kovach	491	579
Some Generalizations of the Newton – Kantorovich Method – N. S. Kurpel' and F. M. Migovich	502	594
Linear Functionals over Sobolev Spaces and Boundary Problems Generated by Theorems on Homeomorphsisms – Ganna Martsinkovska	515	610
Integral Manifolds for Nonlinear Differential Equations with Retarded Argument – V. I. Fodchuk	528	627
Application of the Laplace Transform to the Solution of Linear Differential Equations with Variable Coefficients – A. G. Shevelev	538	640
General Forms of Linear Functionals and the Remainder Terms of Approximation Formulas – I. A. Ézrokhi	548	653
BRIEF COMMUNICATIONS		
A Numerical-Analytical Method of Investigation of Periodic Systems of Integrodifferential Equations – G. Bakhabov	565	675
Asymptotic Uniqueness Theorems for Certain Classes of Infinitely Differentiable Functions – E. S. Dekhtyaryuk and B. I. Korenblyum	572	684
Scattering Problem in the Presence of a Plane Interface between Two Media – M. O. Efimchuk	580	693
On Degenerations of Tetrahedral Complexes – L. A. Kiselevich	584	698

Engl./Russ.

Construction of Approximate Solutions of Denumerable Systems and Their Stability – A. A. Martynyuk and A. A. Sukennik 591 706
Gradiental Modification of a Method of Yu. D. Sokolov – L. P. Peklova 596 712

OBITUARY
Evgenii Alekseevich Barbashin – Yu. A. Mitropol'skii, S. A. Vasilishin, and A. N. Sharkovskii 598 714

Volume 21, Number 6 November-December, 1969

On Certain Properties of Multiplicative Processes – G. P. Butsan 601 723
Approximation of Dynamical Characteristics of a Class of Generalized Functions – V. K. Zadiraka and V. V. Ivanov 610 734
The Construction of the Set of Initial Values of Integral Curves Bounded by a "Slit," Using Asymptotic Methods – I. G. Kozubovskaya 620 746
Generalized Problem of Neumann and the Corresponding Spectral Problem for Equations with Degeneracy on a Part of the Domain Boundary – A. N. Komarenko 630 757
Analytic Functions of the Roots of Polynomials and Their Properties: Representation of the Roots of Polynomials Using K_{ml_j}-Functions – F. G. Kravchenko 639 768
On Perturbations of Self-Adjoint Operators Which Preserve the Limit Spectrum – V. P. Pavlii 650 781
Limit Theorems for a Nonreturning Random Walk in a Markov Chain – D. S. Sil'vestrov .. 657 790

BRIEF COMMUNICATIONS
Investigation of a Class of Linear Differential Equations with Random Delays – V. M. Alekseev 670 805
On the Problem of the Validity of a Method of Averaging for Integrodifferential Equations – G. Bakhabov 675 810
Bisymmetry Test for Completely Continuous Operators – V. I. Godich 679 815
Theory of Rotational Motion of a Free Rigid Body Carrying a Pendulum – V. A. Grobov .. 682 818
Irreducible Representations of the Groups GL(2, q) and GL(3, q) over an Arbitrary Field of Characteristic Zero – E. S. Drobotenko 687 823
On the Distribution of the Size of a Jump of Given Level for a Sequence of Maxima of Random Variables Controlled by a Markov Chain – I. I. Ezhov 694 831
On the Approximation by the Method of Averaging Functional Corrections of the Solution of a Characteristic Singular Integral Equation with a Hilbert Kernel – V. G. Ivanitskii 699 837
On the Asymptotic Behavior of the Duration of a Semi-Markov Process in a Subset of States – V. S. Korolyuk 705 842
On Expansion in Eigenfunctions of a Self-Adjoint Operator Generated by a Differential Expression and Pseudodifferential Boundary Conditions – S. O. Rushchitskaya ... 708 846
On Uniform Approximation in a Closed Region by Means of Generalized Faber Polynomials – A. V. Stovbun 711 849

INDEX
Author Index, Volume 21, Numbers 1-6, 1969 721
Tables of Contents, Volume 21, Numbers 1-6, 1969 723